

Item #39: Regeneration Certified as Completed

Evaluation Question: Are cutover areas being regenerated within prescribed time limits and standards? Are Forest Plan projections for regeneration being met?

Resources to be measured:

- Acres of regeneration certified as completed by year
- Percent of acres of exams with “failed” status by year
- Average years from harvest to certification as stocked

Data Sources: FACTS data queries

Prior to any harvest activity, a detailed silvicultural prescription is developed to spell out treatment steps to move the stand towards the desired future condition. For regeneration harvests, this includes steps needed to prepare an area for restocking, site preparation, planting or natural regeneration, and subsequent surveys to assess reforestation progress. Based on these surveys, post-treatment condition is compared to the planned desired conditions, and a stand is determined to be progressing, certified as stocked, or failing.

During the decade since 1998, 840 stands have been certified as successfully restocked with the desired number and species of tree. This is an average of 1,400 acres annually. Only 6 stands (16 separate exams) in that time period were identified as failures. Failed stands average less than one per year (some stands failed more than once), for an average of 10 acres per year over the decade. Eight years out of 10, failed stands are less than one percent of the total. The worst year within the decade was only a 5% failure rate. The table below displays the rarity of regeneration problems for regenerated areas.

Table 39-1. Acres Certified Stocked/Failed From 1998 to 2007, Flathead NF

Year	Acres Certified Stocked	Acres Failed	% Failures
1998	2,777	18	0.64%
1999	1,967	4	0.20%
2000	1,248	8	0.64%
2001	981	0	0.00%
2002	1,172	8	0.68%
2003	1,562	0	0.00%
2004	1,650	15	0.90%
2005	1,438	0	0.00%
2006	718	18	2.45%
2007	552	29	4.99%
Grand Total	14,065	100	

Stands which have a survey identifying them as failing to meet desired regeneration levels are subsequently re-treated, usually by planting additional trees, and re-surveyed to assure that they

do ultimately meet desired tree species composition and overall tree numbers. The six stands which comprise the failure data above were all “repeat offenders”, with multiple failed exams. In three of the six areas, wildfire within the young stand was the reason for the second failed exam. Failures are often due to harsh sites in combination with drought conditions resulting in poor tree survival. These few failed stands are in various stages of re-treatment. Two have been replanted and are progressing towards certification. One other was planted last year, and will be surveyed in 2009. Three are planned for planting in 2009. Only one 4-acre stand was found which appears to have failed status without having been scheduled for additional reforestation efforts.

The Flathead National Forest has good growing sites which are generally quite easily reforested when prescribed treatments are followed. Every harvest unit has 3 to 4 follow-up examinations, to assess the treatment progress. There is an excellent monitoring system in place to identify and resolve the few reforestation problems which occur.

Timeframe to regeneration is identified as a monitoring item, but has not generally been an issue. National Forest Management Act (NFMA) requires us to have assurance that a site can be reforested within 5 years of harvest. For planted areas, the vast majority are certified as stocked on schedule as displayed above, with either a 3rd or 5th year survey (after planting). For naturally regenerated stands, it may take slightly longer to have well established trees to actually meet certification requirements; however stands are usually identified as progressing at the 3rd year survey, with certification on schedule at the 5th year. A small proportion of stands may require an additional survey at year 6 or 7 years to assure that an adequate number of seedlings are well established and will survive.

Overall, Forest Plan projections for regeneration are being well met. Since 1998, 12,205 acres (466 stands) have been both harvested and subsequently certified as stocked. Those stands average 2.9 years from harvest to certification. No trends have been identified as a concern.

Recommended Actions: Continue to monitor